AMENDMENTS TO THE CLAIMS

This claims list supersedes all previous claims lists.

We claim:

- 1. (Currently amended) A method for pipelining a table function in a database system, comprising:
 - a) performing a set up operation when a the table function is called;
 - b) fetching a subset of output data from a data producer;
- c) sending the subset of the output data to a first consumer of the output data, wherein the first consumer is the table function;
- d) repeating steps b) and c) until all the output data has been fetched from the data producer.
- 2. (Original) The method of claim 1 in which the act of performing a setup operation comprises setting up a context object to maintain state.
- 3. (Original) The method of claim 1 in which the data producer comprises a second table function.
- 4. (Original) The method of claim 1 in which the subset of the output data comprises a single data object or row of data.
- 5. (Original) The method of claim 1 in which the subset of the output data comprises a plurality of data objects or rows of data.
- 6. (Original) The method of claim 1 further comprising:
 - e) performing a close operation after all the output data has been fetched from the data producer.
- 7. (Original) The method of claim 6 in which the act of performing the close operation comprises garbage collection operations.

- 8. (Original) The method of claim 7 in which the garbage collection operations comprises removal of a context object.
- 9. (Original) The method of claim 1 in which the table function executes in a different execution thread than the data producer.
- 10. (Original) The method of claim 1 in which the table function and the data producer execute from an identical execution thread.
- 11. (Original) The method of claim I in which a callback function is passed from the table function.
- 12. (Original) The method of claim 11 in which the callback function is executed on each subset of the output data fetched from the data producer.
- 13. (Original) The method of claim 1 in which the data producer comprises a dynamically configurable return type.
- 14. (Original) The method of claim 13 in which the dynamically configurable return type is established at compile time.
- 15. (Original) The method of claim 1 in which steps a) through d) are implemented within a database query language statement.
- 16. (Original) The method of claim 15 in which the database query language statement comprises SQL.
- 17. (Original) The method of claim 1 in which the subset of the output data is pipelined to a database query language statement.
- 18. (Original) The method of claim 17 in which a callback function is invoked for the subset of the output data.
- 19. (Original) The method of claim 18 in which the callback function filters inappropriate data.

- 20. (Original) The method of claim 1 further comprising:
 - e) send the subset of the output data to a second consumer of the output data.
- 21. (Original) The method of claim 20 further comprising the step of determining whether the subset of the output data should be routed to the first consumer or the second consumer;

executing step c) if the subset of the output data should be routed to the first consumer;

and

executing step e) if the subset of the output data should be routed to the second consumer.

- 22. (Original) The method of claim 21 in which a partitioning definition is applied to determine whether the subset of the output data should be routed to the first consumer or the second consumer.
- 23. (Original) The method of claim 22 in which the partitioning definition comprises either hash or range based partitioning.
- 24. (Original) The method of claim 1 in which the first consumer processes the subset of the output data in parallel.
- 25. (Original) The method of claim 24 in which multiple slaves exist to process the subset of the output data.
- 26. (Original) The method of claim 25 further comprising the step of determining which of the multiple slaves operate upon the subset of the output data.
- 27. (Original) The method of claim 26 in which a partitioning definition is established to route the subset of the output data to an appropriate one of the multiple slaves.
- 28. (Original) The method of claim 27 in which the partitioning definitions comprises either hash or range based partitioning.

- 29. (Original) The method of claim 1 further comprising:
 - optimizing a query comprising the table function.
- 30. (Original) The method of claim 29 in which statistics for the table function are passed to an optimizer.
- 31. (Original) The method of claim 29 in which an optimizer self-determines statistics to optimize the query.
- 32. (Currently amended) A system for pipelining table functions, comprising:
 - a) means for performing a set up operation when a the table function is called;
 - b) means for fetching a subset of output data from the table function;
 - c) means for sending the subset of the output data to a first consumer of the output data;
- d) means for repeating steps b) and c) until all the output data has been fetched from the table function.
- 33. (Currently amended) A computer program product comprising a computer useable medium having executable code to execute a process for pipelining table functions, the process comprising the steps of:
 - a) performing a set up operation when a the table function is called;
 - b) fetching a subset of output data from the table function;
 - c) sending the subset of the output data to a first consumer of the output data;
- d) repeating steps b) and c) until all the output data has been fetched from the table function.